

## STN Columbus

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 MAY 01 New CAS web site launched  
NEWS 3 MAY 08 CA/CAPLUS Indian patent publication number format defined  
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields  
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data  
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload  
NEWS 7 MAY 21 CA/CAPLUS enhanced with additional kind codes for German patents  
NEWS 8 MAY 22 CA/CAPLUS enhanced with IPC reclassification in Japanese patents  
NEWS 9 JUN 27 CA/CAPLUS enhanced with pre-1967 CAS Registry Numbers  
NEWS 10 JUN 29 STN Viewer now available  
NEWS 11 JUN 29 STN Express, Version 8.2, now available  
NEWS 12 JUL 02 LEMBASE coverage updated  
NEWS 13 JUL 02 LMEDLINE coverage updated  
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 15 JUL 02 CHEMCATS accession numbers revised  
NEWS 16 JUL 02 CA/CAPLUS enhanced with utility model patents from China  
NEWS 17 JUL 16 CAPLUS enhanced with French and German abstracts  
NEWS 18 JUL 18 CA/CAPLUS patent coverage enhanced  
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 20 JUL 30 USGENE now available on STN  
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 24 AUG 13 CA/CAPLUS enhanced with additional kind codes for granted patents

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007

=> file reg  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007

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STRUCTURE FILE UPDATES: 17 AUG 2007 HIGHEST RN 944994-02-9

DICTIONARY FILE UPDATES: 17 AUG 2007 HIGHEST RN 944994-02-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e metformin/cn

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E1      1      METFOL-B/CN
E2      1      METFORAL/CN
E3      1  --> METFORMIN/CN
E4      1      METFORMIN CLOFIBRATE/CN
E5      1      METFORMIN HYDROCHLORIDE/CN
E6      1      METFORMIN OROTATE/CN
E7      1      METFORMIN PAMOATE/CN
E8      1      METFORMIN TOLBUTAMIDE SALT/CN
E9      1      METFORMIN-GLIPIZIDE MIXT./CN
E10     1      METFOSFAN/CN
E11     1      METFPROTEIN (SILICIBACTER POMEROYI STRAIN DSS-3)/CN
E12     1      METG (METHANOSPHAERA STADTMANAE STRAIN DSM 3091 GENE METG)/C
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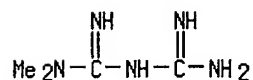
=> s e3

L1 1 METFORMIN/CN

=> d

```
L1  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN  657-24-9  REGISTRY
ED  Entered STN: 16 Nov 1984
CN  Imidodicarbonimidic diamide, N,N-dimethyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN  Biguanide, 1,1-dimethyl- (6CI, 8CI)
OTHER NAMES:
CN  1,1-Dimethylbiguanide
CN  Dimethylbiguanide
CN  DMGG
CN  Ficonax
CN  Fluamine
CN  Flumamine
CN  Gliguanid
CN  Haurymelin
CN  Melbin
CN  Metformin
CN  Metiguanide
CN  Metphage
CN  N'-Dimethylguanylguanidine
CN  N,N-Dimethyl-imidodicarbonimidic diamide
CN  N,N-Dimethylbiguanide
CN  N,N-Dimethyldiguanide
CN  N1,N1-Dimethylbiguanide
CN  NNDG
CN  Siofor
MF  C4 H11 N5
CI  COM
LC  STN Files:  ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
               BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
               CHEMINFORMRX, CHEMLIST, CIN, CSCHM, DDFU, DRUGU, EMBASE, GMELIN*,
               HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS,
               IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS,
               RTECS*, SCISEARCH, SPECINFO, SYNTHLINE, TOXCENTER, USAN, USPAT2,
               USPATFULL
               (*File contains numerically searchable property data)
```

Other Sources: EINECS\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2712 REFERENCES IN FILE CA (1907 TO DATE)  
50 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2722 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s glyburide/cn  
L2 1 GLYBURIDE/CN

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 10238-21-8 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Benzamide, 5-chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (CA INDEX NAME)

OTHER NAMES:

CN 1-[4-[2-(5-Chloro-2-methoxybenzamido)ethyl]phenylsulfonyl]-3-cyclohexylurea  
CN 1-[p-2-(5-Chloro-o-anisamido)ethylphenylsulfonyl]-3-cyclohexylurea  
CN 1-[[p-2-(5-Chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea  
CN Abbenclamide  
CN Adiab  
CN Antibet  
CN Apo-Glibenclamide  
CN Azuglucon  
CN Bastiverit  
CN Benclamin  
CN Betanase  
CN Betanaz  
CN Betanese 5  
CN Calabren  
CN Cytagon  
CN Daonil  
CN Daonil N  
CN Debtan  
CN Dia-basan  
CN Diaben  
CN Diabeta  
CN Diabiphage  
CN Dibelet  
CN Duraglucon  
CN Euglucon  
CN Euglucon 5  
CN Euglykon  
CN GBN 5  
CN Gilemal  
CN Gl  
CN Glamide  
CN Gliban  
CN Gliben  
CN Gliben-Puren N  
CN Glibenclamide  
CN Glibenil  
CN Glibens  
CN Glibesyn  
CN Glibet  
CN Glibetic  
CN Glibil

CN Gliboral  
 CN Glicem  
 CN Glidiabet  
 CN Glimel  
 CN Glimide  
 CN Glimidstada  
 CN Glisulin  
 CN Glitisol  
 CN Glyburide

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
 DISPLAY

MF C23 H28 Cl N3 O5 S

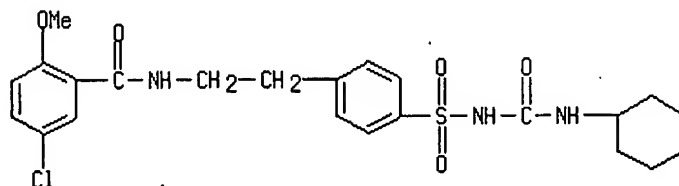
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 CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB,  
 DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSPATENTS,  
 IPA, MEDLINE, MRCK\*, PIRA, PROMT, PS, RTECS\*, SCISEARCH, SPECINFO,  
 TOXCENTER, USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3575 REFERENCES IN FILE CA (1907 TO DATE)

34 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3584 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file merck

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
14.25	14.46

FULL ESTIMATED COST

FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

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FILE COVERS FROM LATE 19TH CENTURY TO PRESENT. LAST UPDATE: OCTOBER 2005

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=> d his

(FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007)

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007

E METFORMIN/CN

L1 1 S E3

L2 1 S GLYBURIDE/CN

FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

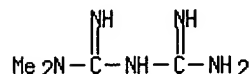
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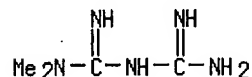
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L3 ANSWER 1 OF 1 MRCK COPYRIGHT (C) 2007 Merck and Co., Inc.,  
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MERCK Number (MNO): 5963  
 CAS Registry No. (RN): 657-24-9  
 MERCK Index Name (MIN): Metformin  
 CA Index Name (CN): N,N-Dimethylimidodicarbonimidic diamide  
 Synonym(s) (CN): 1,1-dimethylbiguanide; N,N-dimethyldiguanide;  
 N'-dimethylguanylguanidine; DMGG  
 Drug Code(s) (CN): LA-6023  
 Molecular Form. (MF): C4 H11 N5  
 Wgt Composition (COMP): C 37.20%, H 8.58%, N 54.22%.  
 Molecular Weight (MW): 129.16  
 References (RE): Oral hypoglycemic agent. Prepn: Werner, Bell, J. Chem. Soc. 121, 1790 (1922); Shapiro et al., J. Am. Chem. Soc. 81, 3728 (1959). Use as antidiabetic: J. J. Sterne, US 3174901 (1965 to Jan Marcel Didier Aron-Samuel). Toxicity: Rx Bulletin 3, 25 (1972). Determn in plasma: S. AbuRuz et al., J. Chromatogr. B 798, 203 (2003). Clinical pharmacokinetics: G. T. Tucker et al., Br. J. Clin. Pharmacol. 12, 235 (1981). Review of pharmacology: L. S. Hermann, Diabete Metab. 5, 233-245 (1979). Metabolic effects and mechanism of action study: M. Stumvoll et al., N. Engl. J. Med. 333, 550 (1995). Review of efficacy in polycystic ovary syndrome: J. M. Lord et al., Br. Med. J. 327, 951-955 (2003); in type 2 diabetes mellitus: S. M. Setter et al., Clin. Ther. 25, 2991-3026 (2003).



== DERIVATIVE == (1): Hydrochloride  
 CAS Registry No. (RN.DRV): 1115-70-4  
 Trade Name(s) (CN.DRV): Debeone (Armstrong); Diabex (Merck KGaA); Glucophage (Merck KGaA); Metiguanide (Novo)  
 Molecular Form. (MF.DRV): C4 H11 N5 . Cl H  
 Wgt Composition (COMP.DRV): C 29.01%, H 7.30%, N 42.29%, Cl 21.41%.  
 Molecular Weight (MW.DRV): 165.62



# HCl

Melting Point (MP.DRV):

Deriv. Number	Derivative Type	Value MP.DRV deg C	Note
1	Hydrochloride	232 218 - 220	(Werner, Bell) (uncorr) (Shapiro)

Toxicity (TOX.DRV):

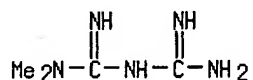
LD50 in rats (mg/kg): 1000 orally, 300 s.c. (Rx Bulletin).

Other Properties (OCPP.DRV):

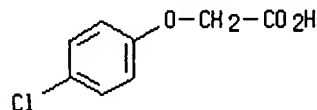
Prisms from water, mp 232° (Werner, Bell) ; crystals from propanol, mp 218-220° (uncorr) (Shapiro) . Sol in water, 95% alcohol. Practically insol in ether, chloroform. LD50 in rats ( mg/kg ) : 1000 orally , 300 s.c. (Rx Bulletin) .

== DERIVATIVE == (2): p-Chlorophenoxyacetate (salt)  
 CAS Registry No. (RN.DRV): 25672-33-7  
 Trade Name(s) (CN.DRV): Glucinan (Merck KGaA)  
 Molecular Form. (MF.DRV): C4 H11 N5 . C8 H7 Cl O3  
 Wgt Composition (COMP.DRV): C 45.64%, H 5.75%, N 22.18%, Cl 11.23%, O 15.20%.  
 Molecular Weight (MW.DRV): 315.76

CM 1

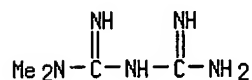


CM 2

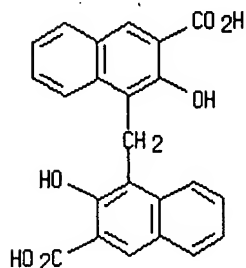


== DERIVATIVE == (3): Embonate  
 CAS Registry No. (RN.DRV): 34461-22-8  
 Synonym(s) (CN.DRV): Metformin pamoate  
 Trade Name(s) (CN.DRV): Stagid (Merck KGaA)  
 Molecular Form. (MF.DRV): (C4 H11 N5)2 . C23 H16 O6  
 Wgt Composition (COMP.DRV): C 57.57%, H 5.92%, N 21.66%, O 14.84%.  
 Molecular Weight (MW.DRV): 646.70

CM 1



CM 2



Therapeutic Codes (THER):  
 Antidiabetic. In treatment of polycystic ovary syndrome.  
 Referenced Patent (RPN):  
 US3174901

=> s l2  
 L4 - 1 L2  
 => d all

L4 ANSWER 1 OF 1. MRCK COPYRIGHT (C) 2007 Merck and Co., Inc.,  
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 MERCK Number (MNO): 4491  
 CAS Registry No. (RN): 10238-21-8  
 MERCK Index Name (MIN): Glyburide  
 CA Index Name (CN): 5-Chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide  
 Synonym(s) (CN): 1-[[p-[2-(5-chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea; N-[4-(β-(2-methoxy-5-chlorobenzamido)ethyl)benzosulfonyl]-N'-cyclohexylurea; N1-[4-[β-(2-methoxy-5-

chlorobenzoylamino)ethyl]benzenesulfonyl]-N2-cyclohexylurea; Glybenzcyclamide; Glibenclamide

Drug Code(s) (CN): HB-419; U-26452

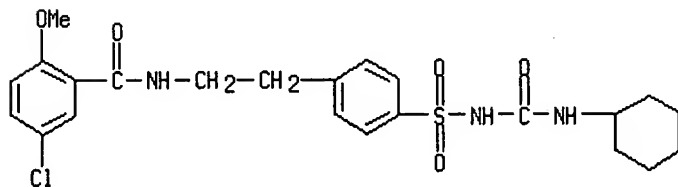
Trade Name(s) (CN): Azuglucon (Azupharma); Bastiverit (Bastian-Werk); Diabasan (Biofarma); Diabeta (Sanofi-Aventis); Daonil (Sanofi-Aventis); Duraglucon (Dura); Euglucon (Sanofi-Aventis); Gilemal (Chinoin); Glimidstada (Stada); Glycolande (Sanofi-Synthelabo); Libanil (Approved Prescrip.); Maninil (Berlin-Chemie); Micronase (Pharmacia & Upjohn); Praeciglucon (Pfleger)

Molecular Form. (MF): C23 H28 Cl N3 O5 S

Wgt Composition (COMP): C 55.92%, H 5.71%, Cl 7.18%, N 8.51%, O 16.19%, S 6.49%.

Molecular Weight (MW): 494.00

References (RE): Second generation sulfonylurea with hypoglycemic activity. Prepn: Aumuller et al., Arzneim.-Forsch. 16, 1640 (1966); NL 6603398 (1966 to Boehringer, Mann.), C.A. 66, 65289h (1967); NL 6610580; H. Weber et al., US 3454635 (1967, 1969 both to Hoechst). Pharmacology: Loubatieres, Mariani, C.R. Seances Acad. Sci. Ser. D 265, 643 (1967). Toxicity: Mizukami et al., Arzneim.-Forsch. 19, 1413 (1969). Series of articles on synthesis, pharmacology, toxicology and clinical studies: ibid. 1323-1494. Effect on release of insulin, glucagon and somatostatin: S. Efendic et al., Proc. Natl. Acad. Sci. USA 76, 5901 (1979). Symposium on pharmacology, mechanism of action and clinical trials: Ann. Clin. Res. 15, Suppl. 37, 1-35 (1983). Comprehensive description: P. G. Takla, Anal. Profiles Drug Subs. 10, 337-355 (1981). Review of pharmacology and clinical efficacy: J. M. Feldman, Pharmacotherapy 5, 43-62 (1985).



#### Melting Point (MP):

Value MP deg C	Note
=====	
169 - 170	(Weber)
172 - 174	(Aumuller)

#### Toxicity (TOX):

LD50 in rats and mice (g/kg): >20 orally; >12.5 i.p.; >20 s.c. (Mizukami).

#### Other Properties (OCPP):

Crystals from methanol, mp 169-170° (Weber) ; also reported as mp 172-174° (Aumuller) . pKa 5.3. Sparingly sol in water, sol in the usual organic solvents. LD50 in rats and mice ( g/kg ): > 20 orally ; > 12.5 i.p. ; > 20 s.c. (Mizukami) .

#### Therapeutic Codes (THER):

Antidiabetic.

#### Other Sources (OS):

CA 66:65289

#### Referenced Patent (RPN):

NL6603398; NL6610580; US3454635

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY  
5.70

SESSION  
20.16

STN INTERNATIONAL LOGOFF AT 22:52:01 ON 19 AUG 2007